In DA 95-1498, the FCC wrote this:

“Use of amateur volunteers for the purpose of monitoring violations in the amateur service is permitted by the Act. 47 U.S.C. § 4(f)(4)(C). In fact, the amateur radio community has distinguished itself for its self-policing operations. See H.R. Rep. No. 765, 97thCong.. 2d Sess. 19 (1982) (Commission reporting to Congress the success of amateur self-monitoring efforts).”

In DA 13-1918, the FCC wrote this in Footnote 18:

“We note that a hallmark of enforcement in the amateur service is "self-policing," which depends on an amateur station hearing a message being able to determine whether message violate the amateur service rules. See, e.g., Waiver of Sections 97.80(b) and 97.114(b)(4) of the Amateur Rules to Permit the Retransmission of Third-Party Traffic in Certain Situations, Order, PR Docket No. 85-105, 59 Rad. Reg. (P & F) 1326, 1326 ¶ 2 (PRB 1986). ”

In part, I wrote the following as a comment to RM-11831 on April 26, 2019:

“I support the transparency efforts of this filing. I believe that the FCC should amend Part 97 in some manner to make clear that the intent of Part 97's "self policing", and the point of prior FCC rulings is that any method of transmitting information should be sufficiently documented such that it is technically *and legally* possible to create device / application / system to monitor the contents of the communications sent using the transmitting method in question. In other words, the documentation required should enable the sufficiently capable amateur to build a monitoring method, whether by (legal) reverse engineering or building to a reference architecture. This also inherently means that systems where the creator of a system has not / will not publish sufficient data to reverse engineer / build to a reference architecture, or where the reverse engineering / reference architecture would place the monitoring amateur in legal jeopardy (intellectual property laws), then the transmitting method must not be used on amateur radio frequencies. Self policing and de facto message obscuration (aka security through obscurity or artificial monitoring scarcity) are ideas that are at odds with one another. The FCC must make a ruling in one direction or the other.”

If the FCC still believes that self-policing is a positive attribute for the amateur radio service, then the FCC must create clear rules, guidelines for those rules and examples as it relates to the current state of amateur radio.

The topic of DA 19-1130 is part of a larger discussion in amateur radio. This discussion has many interrelated tendrils. Some examples of areas for improvement or clarification for the FCC to consider:

1) In 97.309 (a) (4), "...technique whose technical characteristics have been documented publicly..." - what constitutes satisfying this rule? Certain techniques are listed in the rule, but there is no corresponding guidance for why these specific techniques are viewed as fulfilling the "documented publicly" requirement. In the absence of guidelines or other direction, updated versions of the listed techniques have been assumed to be also fulfilling this same requirement, even if their implementation and/or publicly available documentation varies significantly from the originally listed techniques at the time the rule was published. Is this what the FCC intended?

2) Does the commercial availability of technique decoding devices somehow remove or otherwise modify the requirement for a technique to be "documented publicly"? If I create a new technique and fail to publicly document the technique to the degree necessary for a sufficiently talented amateur to recreate and/or decode my technique, but instead I offer my devices for sale to anyone interested in buying them, am I still obligated to offer the documentation? Does the offer of sale of my devices remove, reduce or otherwise modify the degree to which I must document my technique? Can I charge for my documentation? If so, how much? Can I make other conditions on the availability of my documentation (such as a license)? Does "intellectual property" have any bearing on this documentation requirement?

3) Do the typical conditions under which monitoring would normally be expected to occur have any bearing on the acceptability of a particular technique, it's implementation or it's documentation? For example, on many HF bands significant fading during a QSO is expected to occur at times. Two participants in a conversation would naturally anticipate this fading could occur and would have methods to successfully communicate even in the presence of such fading. On many "manual" modes (e.g. SSB voice, CW), the receiving station may ask the transmitting station to resend part or all of the message to successfully communicate the intended message. Many data transmission techniques compensate for intermittent fading in a similar manner, by asking for part or all of the data to be resent. Data modes use translation tables, sometimes also referred to as 'digital codes' (such as ASCII, AMTOR, etc.) When this becomes an issue is when the transmission technique utilizes a varying translation table (a method where the same message input does not always result in the same output at RF). If the translation table varies based on the input to the technique (such as in certain data compression methods), and if the translation table updates are only sent once during a particular transmission, this creates a situation where a 3rd party monitor may be unable to turn the monitored RF back into the original message past a certain time point in the data conversation. Is such a "variable dictionary" acceptable in techniques utilized on HF frequencies (where such fading may occur), or should the translation table always be fixed to increase the likelihood that a 3rd party monitor would be able to "determine whether [a particular] message violate[s] the amateur

service rules"? Is this "variable dictionary" acceptable in other circumstances (such as on other frequencies)? If so, why?

4) Who is the control operator of a system which acts as an automatic gateway to a system or network not controlled by the amateur operating the gateway? For example, if an amateur (Alice in this example) creates or operates a gateway to the Internet on the 6mm band and allows other amateurs (Bob in this example) to send and receive data via this gateway to / from systems on the Internet (systems not controlled by Alice), who is / are the control operator(s) in this situation? Is the gateway to be treated similar to current 97.205(g) and/or 97.219(c), where Alice is not necessarily responsible for 'violative communications' transmitted by the gateway on amateur frequencies? Or is Alice always to be considered as the control operator of Alice's station, to be fully accountable "for any violation of the rules in this part contained in messages" it transmits on amateur frequencies? Is Bob considered a control operator of Alice's station in any manner, removing some or all of Alice's accountability for the operation of Alice's station? Does "who initiated the communication session" have any bearing on this?

5) Is a computer or system not operated by the amateur considered a "third party" (or a party at all) under Part 97? In the example in (4), if Alice's station is relaying a message to Bob, and if the originator / author of that message is not Alice but is instead a computer or system on the Internet, should the system that actually originated the message be considered a "third party"? Alice did not author the message contents; she is simply receiving the message from 'somewhere else' (not an amateur) and transmitting them on amateur frequencies to Bob. In a different example, if a non-amateur (Chris) created a message on paper, gave that message to Alice who then transmitted that message to Bob on 20M SSB, Chris would clearly be considered a "third party" as far as I can tell under current Part 97 rules. Does the FCC intend that system-originated messages be treated in the same manner (thus making the system a "third party") as human-originated messages, or does the FCC intend that system-originated messages be intentionally treated differently than human-originated messages? Does "who initiated the communication session" have any bearing on this?

As stated before, if the FCC still believes that self-policing is a positive attribute for the amateur radio service, then the FCC must create clear rules, guidelines for those rules and examples as it relates to the current state of amateur radio. Technology changes have greatly outpaced published guidance from the FCC. Providing clear, updated guidance with real-world examples can help to clear up disputes among

amateurs and misunderstandings of the FCC's intent. Making sure every amateur understands their responsibilities and obligations is important to the larger self-policing efforts of amateur radio.

Experimentation on amateur radio frequencies, also referred to as "advancement of the radio art" in 97.1(b), is expected and encouraged according to a strict reading of 97.1. If this is still the case, the FCC must provide more frequent and more descriptive guidance to amateur radio operators.

Dennis McGough, KC4RAN
146 Victoria Lane East
Hendersonville, TN 37075